

CAMBODIA
HEALTH REPORT AND STATISTICS

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Population and Demographic Transition

The 2005 population pyramid for Cambodia (Fig 1A) demonstrates the wide based pyramid shape classic of countries early in the demographic transition. A closer look, however, shows that the widest point in the pyramid for both males and females is in the 10-19 year age group. This suggests that Cambodia is in fact in the latter part of the early demographic transition. Projections for the population growth of Cambodia in 2025 (Fig 1B) and 2050 (Fig 1C) are consistent with Cambodia moving into the later demographic transition. By 2050, the number of individuals in each category from age 0 to age 39 years is approximately equal.

Returning to the 2005 population pyramid, the most notable and atypical feature is the precipitous decrease in the number of people aged 25 and older as compared to those 24 and younger. This atypical feature of Cambodia's population pyramid is explained in large part by the country's tragic history. Between 1975 and 1979, it is estimated that between 1.7 and 3 million individuals lost their lives through execution, disease, or starvation in the Khmer Rouge era.¹ An unknown number of Cambodians fled the country into neighboring nations or overseas. This catastrophic genocide and human migration forever altered the makeup of the Cambodian populations and its impact is clearly evident in the 2005 population pyramid.

In fitting with a country in the early stage of the demographic transition, Cambodia has both a high crude birth rate (34/1000 population) and a high crude death rate (10/1000 population).² However, there is evidence of significant variation in demographic transition by region within Cambodia. The total fertility rate (TFR) is over 40% higher for rural women than it is for their urban counterparts.³ This trend is observable in all age groups. The higher TFR in rural women is associated with a lower education level (37.4% of rural woman have

no education vs. 24.3% of urban woman³). Additionally, the use of modern methods of contraception varies greatly across the country. In the urbanized national capital of Phnom Penh and in the more developed provinces bordering Thailand (Banteay Mean Chey, Bat Dambang, and Krong Pailin), 25-30% of married woman use contraception.⁴ In the rural eastern provinces of Rotanak Kiri and Mondol Kiri that contain the majority the country's ethnic minorities, less than 10% of married woman utilize modern methods of contraception.⁴ The relationships between rural poverty, poor education, and high total fertility rates in the developing world is well established.^{5,6} Cambodia's rural population (81% of the total⁷) contributes heavily towards the broad based pyramid classic of the early demographic transition.

Epidemiologic Transition

Omran described the epidemiological transition as occurring when shifts in levels of mortality are associated with changes in the underlying causes of mortality.⁸ Improvements in hygiene, nutrition, and health care along with the control of infectious diseases leads to increases in life expectancy and a shift to an increased burden of non-communicable diseases. The WHR 2004⁹ places Cambodia in the Western Pacific Region, mortality strata B (WPR-B) (low child & low adult mortality). It may be expected that mortality rates for countries within the strata would be similar; however, a cursory look at Table 2 indicates that this is not the case. The under five mortality rate for Cambodia is 140, compared to 37, 23, and 36 for China, Vietnam, and the Philippines respectively. In fact, the WHR 2004 states that Cambodia has been included in this mortality strata for record keeping purposes only. In reality, Cambodia remains a country whose main burden of disease is caused by infectious processes. According to the WHO Western Pacific, Regional Office for the Western Pacific, in 2000, four of the top five causes of mortality (rates given per 100 000 population) in

Cambodia were infectious in nature; tuberculosis (5.00), malaria (4.75), acute respiratory infections (3.43), road accidents (1.40), and meningitis (0.83).¹¹ This is in contrast to the three top causes of DALY loss for the WHO WHR 2004⁹ WPR-B mortality strata (Table 2), as well as the top causes of mortality in the strata³¹, which are all non-communicable in nature. While the majority of the countries in WPR-B are well progressed into their respective epidemiologic transitions, Cambodia remains a country in the pre-transition phase, struggling under the burden of infectious diseases.

Cambodia as a whole is in the pre-transition phase, however, there is indirect evidence that sub-groups within the country experience differing burdens of disease. Education level and place of residence (urban vs. rural) may be used as indirect indicators of socio-economic standing. For all health metrics, there exists a strong negative association between rural residence and lower education level and higher disease burden. For example, 61.0% of urban Cambodian's have been vaccinated against measles compared to 54.6% of rural residents.¹² Likewise, an individual with a secondary education is more likely to be immunized against measles than one with no education (71.1% vs. 45.6%).¹² An rural dweller is nearly 50% more likely to be moderately to severely anemic than one living in an urban setting (34.7% vs. 23.7%).¹² Females with no education are nearly three times as likely than a woman with a secondary education to be severely malnourished (Z score < 2 SD).¹² A mother with no education is nearly twice as likely to have a child die under the age of five than is a mother with a secondary education, and the mortality rate of rural born infants is over 30% higher than those that are urban born.¹² These indirect data strongly suggest that there are distinct patterns along the socioeconomic divide, with the uneducated, rural, extremely poor bearing the highest burden of disease.

Maternal Health

Pregnancy and childbirth is a time of great risk to health for many Cambodian women. The annual maternal mortality ratio (MMR) of 450 per 100000 live births¹⁰ is one of the highest in the world outside of Sub-Saharan Africa. There are many causes for a high MMR including early maternal age at first birth, high fertility rates, poor access to contraceptive care, and limited access to skilled birth attendants. Teenaged girls who are twice as likely to die from pregnancy or childbirth as are women over 20.¹³ In Cambodia, approximately 8% of women have their first child under the age of 20.¹⁴ As seen in Table 1, Cambodia's total fertility rate is relatively high at 4.7. Use of modern contraception varies from 30% in urban areas to less than 10% in much of the rural country. The MMR is very sensitive to the availability and quality of obstetrical care. Using the 3 delay model developed by Barnes, Josiah et al. aids in understanding the relatively high MMR in Cambodia. Delay 1 is the delay in seeking care and is related to socio-economic status (SES) and maternal health status. Cambodian women, especially those from rural areas, are generally of low SES and many have poor underlying health; 38% are moderately or severely anemic and 21% have a Z-Score 2 or more standard deviations below the mean.¹² Fewer than half of women receive any antenatal care.¹⁰ Delay 2 is the delay in reaching an appropriate health facility for obstetrical care. In the year 2000, less than 10% of births occurred in health care facilities and only 32% were attended by skilled birth attendants (Table 3).¹⁰ The major urban centers of Phnom Penh, Siem Reap, and Shianoukville provide hospital based obstetric care, however, only a small percentage of the population is geographically and economically able to access such facilities. Further inhibiting the ability of rural Cambodian

woman to access obstetrical care is the notoriously poor condition of the country's transportation infrastructure. Most roads were destroyed in the late 1970's during the Khmer Rouge period and are only now being rebuilt. Currently, only one fifth of Cambodia's roads are paved. Delay 3 is the delay in obtaining quality care once having arrived at a health facility. In 2000, Cambodia had just over 3000 midwives.¹⁰ Due to the specific targeting of the educated class by the Khmer Rouge regime, in the late 1970's, many physicians either lost their lives or fled the country, leaving Cambodia with a severely depleted of health professionals (1.62 MD's per 100 000 population¹¹).

Neonatal Health

Cambodia has an early neonatal mortality rate and a neonatal mortality rate of 31 and 40 per 1000 live births respectively.² Nearly 30% of all under 5 deaths in the country are a result of neonatal mortality (Table 3). The main causes of neonatal mortality in low and middle income countries are estimated to be preterm birth (28%), severe infections (26%), and birth asphyxia(23%).¹⁶ While data does not exist on the direct causes of Cambodia's neonatal mortality, it is reasonable to assume the causes are similar to other low and middle income countries. Globally, 14% of infants are born with a low birth weight, however, this group accounts for 60-80% of neonatal mortality.¹⁶ In Cambodia, 11% of infants are born with a low birth weight and it is likely that this small group disproportionately contributes to the national neonatal mortality rate. The health of the mother during pregnancy is also known to be a determinant of neonatal survival.¹⁷ As outlined previously, maternal health in Cambodia is less than adequate by many means of measurement. Up to 45% of neonatal deaths occur in the first 24 hours of life¹⁶ and thus this is a critical period for appropriate medical management of sick newborns. However, with only 10% of Cambodian births

occurring in a health facility and less than a third of deliveries attended by skilled health personnel¹⁰, care such as appropriate resuscitation and antibiotics is rarely available.

Child Health

There are approximately 67 000 under five deaths in Cambodia each year.² The national under five year mortality rate of 140 (per 1000 births) places Cambodia as the 32nd highest in the world. Only one non-African country (Afghanistan, 257/1000 births) has a higher under five mortality rate.¹⁸ Clearly, the state of child health in Cambodia is poor. Nutritional status is a strong predictor of susceptibility to infectious diseases. It is estimated that the percent of morbidity attributed to being underweight is 61% for diarrhea, 57% for malaria, 53% for pneumonia, 45% for measles, and 53% for other infectious diseases.¹⁹ The United Nations Population Fund¹⁴ estimates that in Cambodia, 53% of male children and 36% of female children under five years old are moderately or severely underweight,. Furthermore, 45% of children under five are moderately to severely stunted and 15% are moderately to severely wasted.² It is evident that both caloric and micronutrient deficiencies play a large role in Cambodia's high child mortality rate. Black et al.classify Cambodia within country typology profile 1.¹⁸ For countries included in this profile, 24% of under 5 deaths are attributable to diarrhea, 24% to pneumonia, and approximately 30% to neonatal causes. The major cause of diarrheal illness is lack of access to clean drinking water. Only 30% of Cambodians currently have such access.¹⁴ The high burden of mortality from pneumonia may largely be attributed to poor immunization rates (65% measles coverage), decreased immunity (poor nutrition plus Vit A supplementation rates of only 34%) and lack of access to timely and appropriate antibiotic care (35% of children with febrile respiratory illness taken to health care facility).²

School-Aged Children and Adolescent Health

There is significantly less data available on the health and nutrition status of school-aged children and adolescents in Cambodia. A great deal of the data that does exist regards schooling. This data is important because education level is a predictor of health.¹² The primary school enrollment ratio for males and females is 89% and 83% respectively.² The secondary school enrollment ratio for males and females is 27% and 16% respectively.² Of the poorest fifth of the population, only 47% of males and 45% of females attend primary school. Such disparities contribute to the lifelong increased risk of ill health for the extremely poor. The remaining data relevant to school-aged and adolescent wellbeing regards sexual and reproductive health. Worldwide, pregnancy related complications are the number one cause of death for girls aged 15-19.¹³ In Cambodia, the age specific fertility rate in the 15-19 year old age group is 59.9 per 1000 women. This relatively high rate, in conjunction with the previously described shortcomings in antenatal and obstetrical care, suggests that pregnancy related morbidity and mortality may be a significant issue in Cambodia. Finally, Cambodia has the highest HIV infection rate in Asia²⁰. An estimated 1.7% of all 15-24 year olds are HIV positive, with the rates more than twice as high in females (2.0-3.0%) than in males (0.8-1.2%).¹⁴

Adult Health

58% of Cambodians are over 16 years old¹⁴ and 3% are over the age of 65.²¹ As is expected in a country that is early in the epidemiologic shift, infectious diseases continue to cause great morbidity and mortality in the adult population. The HIV prevalence rate among general population adults (15-49 years old) is estimated at 2.6% and the pattern of transmission is rapidly shifting from sex-worker based to husband to wife.²² Tuberculosis continues to be a burden on the adult population. The incidence and prevalence of tuberculosis in adults aged 15-49 is estimated at 508 and 762 per 100 000 population

respectively.²³ 13% of all tuberculosis patients are co-infected infected with HIV.²³ Given three decades of civil war and five years of genocide under the Khmer Rouge regime, it is not surprising that the surviving population, now aged 25 and above, suffer from tremendous neuropsychiatric disorders, most significantly post-traumatic stress disorder (PTSD) and depression. The connection between conflict and mental health is well described.³⁰ Unfortunately, little mental health research has been done in Cambodia. However, neuropsychiatric disorders have been examined in Cambodian Refugees in the United States. A recent cross-sectional study of a Californian Cambodian community revealed that 62% suffer PTSD and 51% suffer major depression.²⁴ Of the 483 adults interviewed who lived in Cambodia during the Khmer Rouge reign (1975-1979), 99% experienced near death due to starvation, 96% were forced to work as slave laborers, and 90% had a family member or friend murdered.²⁴ While minimally documented, it is exceedingly likely that PTSD and depression are major causes of DALY's in the adult Cambodian population.

Major Health Problems in Cambodia

Table 4 lists five proposed criteria for defining the top health problems in Cambodia: 1) Top causes of mortality, 2) Top causes of morbidity, 3) Behavioral risk factors for disease, 4) Top health issues stemming from the Cambodian genocide and civil war, and 5) Top emerging public health problems. With acknowledgement that none of these categories are independent of the others, the top direct causes of mortality represent the most logical means of defining the most important public health problems in the country. Cambodia remains early in the epidemiologic transition and thus the three infectious processes shown as the top causes of mortality in Table 4 (TB, Malaria, & ARI) continue to be the primary obstacles that need to be overcome to improve the health of the population. This, however, does not diminish the importance of other means of defining public health problems. The top causes

of morbidity (ARI, diarrhea, & malaria) are also infectious in nature and affect primarily children under the age of five. However, by utilizing top causes of mortality rather than morbidity, tuberculosis becomes the top public health problem in Cambodia. The inclusion of TB is important for two reasons. One, despite a relatively small population, Cambodia ranks 23rd in the world in number of TB cases and has a prevalence rate of 762 cases per 100 000 population.²³ Selected information regarding TB in Cambodia may be seen in Table 5. Secondly, and perhaps more importantly, prevalence of TB serves as an indirect measure of the impact of HIV/AIDS. Any list of the top health problems in Cambodia must, directly or indirectly, reflect the burden of HIV/AIDS. Cambodia's HIV prevalence is estimated at 2.6% of the population, the highest rate in Asia.²² Prevalence is highest in the provinces bordering on Thailand (Figure 3). 13% of individuals with TB are also HIV positive and this subgroup likely makes up the large majority of the TB related mortality.²³ The HIV epidemic in Cambodia is no longer mainly confined to high risk populations such as direct/indirect commercial sex workers and their clients.²² This shift in epidemiologic trends (Figure 4), in conjunction for Cambodia's very limited means of a population level response, suggests the worrisome potential for a catastrophe similar to that now seen in many Sub-Saharan African countries (Table 6). An epidemic of TB in a population with a high prevalence of HIV preferentially targets young adults who are the mainstays of the workforce, the food producers, and the backbone of the economy. An additional benefit of defining the top problems by mortality is the weight given to malaria and acute respiratory infections (ARI). While the main burden of TB falls on adults, malaria (Figures 5 & 6) and ARIs are major causes of death in children. Thus, the top 3 problems under the chosen definition cover the main infectious diseases across the life span; very appropriate for a country early in the epidemiologic transition. Using this definition will allow for targeting investigation of the

most important proximal contributors to mortality in the country and will permit the development of an appropriate and effective medical, political, economic, and social response.

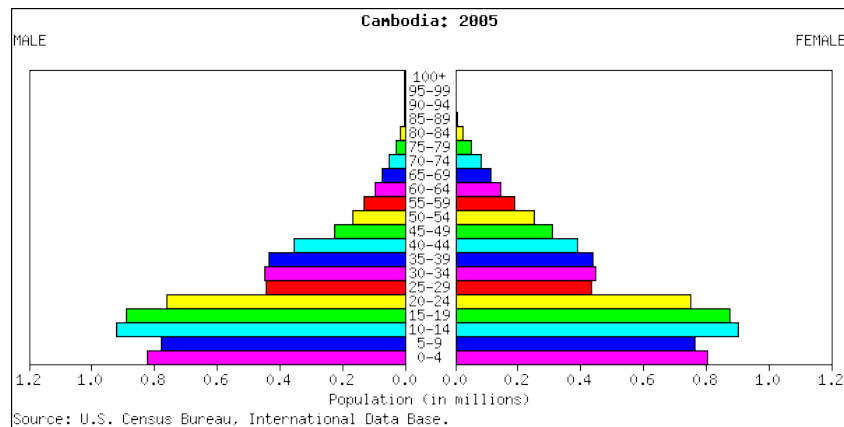
While not chosen as the most appropriate set of criteria, the remaining four proposed sets of criteria remain important as they allow the consideration of similar problems but from different perspectives. A behavioral risk factor analysis identifies specific areas that are amenable to information and educational campaigns. The top three behavioral risks in Cambodia are unsafe sex, unsafe driving, and tobacco use. Cambodia's cycle of HIV transmission largely consists of sex worker to male client to female wife. Each of these steps is directly related to unsafe sexual practices. Ensuring 100% condom use in commercial sex venues and empowering women in regards to sexual decision making with their husbands are two effective means of reducing HIV transmission that are facilitated by a behavioral analysis. Deaths from motor vehicle accidents are the 4th leading cause of morbidity in Cambodia.¹¹ The identification of behavioral risk factors (eg. riding a moto helmetless) will facilitate an appropriate public health response to this issue. Finally, as in many developing countries, the use of tobacco products is increasing. Currently, 67% of Cambodian males smoke.²³ Through programs minimizing this behavior, it may be possible to decrease the future burden of non-communicable diseases such as lung cancer and cardiovascular disease that are projected to increase as Cambodia progresses through the epidemiologic transition.

The two final criteria that were considered for defining the top problems were 1) health issues stemming from the 1975-79 genocide and 2) the top emerging public health problems. Cambodia's tumultuous and tragic political history has left it with a heavy burden of psychiatric disease²⁴ as well as one of the worst landmine problems in the world.²⁵ While it is heartbreaking that a decades ago conflict continues to destroy lives and livelihoods, the

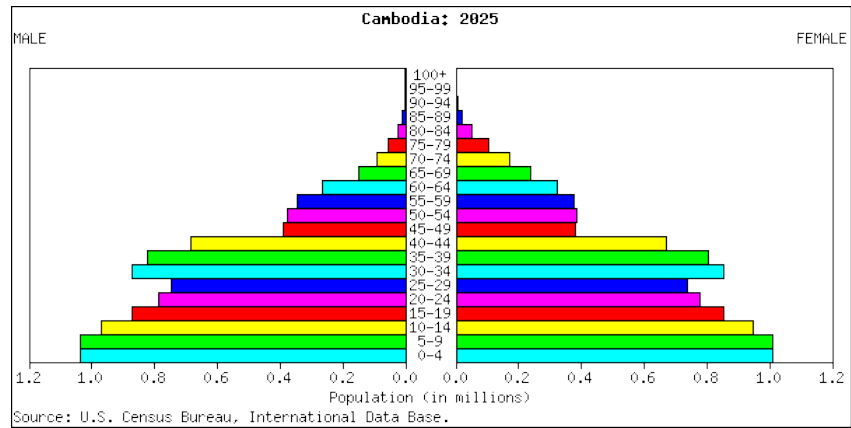
limited scope for potential worsening of these problems with the passage of time precluded the choice of genocide/civil war related health problems as the most appropriate means of defining Cambodia's major health issues. The top emerging health problems facing Cambodia are the HIV/AIDS epidemic, avian influenza, and lung cancer. HIV/AIDS and lung cancer are considered under other prospective defining criteria and the risk related to H5N1 avian influenza, while enormous, is very uncertain.²⁹

Figures 1A, 1C, & 1C – Cambodia Population Pyramid, 2005 & Population Pyramid Projections, 2025 & 2050
(Source: US Census Bureau³¹)

1A)



1B)



1C)

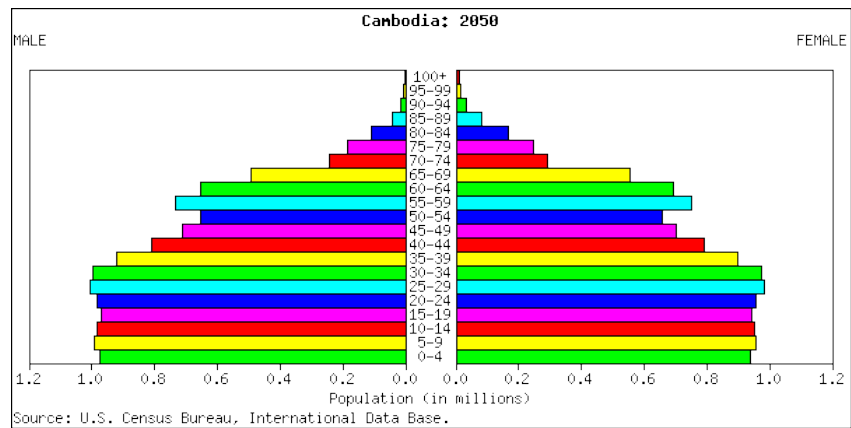


Figure 2: Currently Married Women Using Modern Methods of Contraception
(Source: DHS 2000⁴)

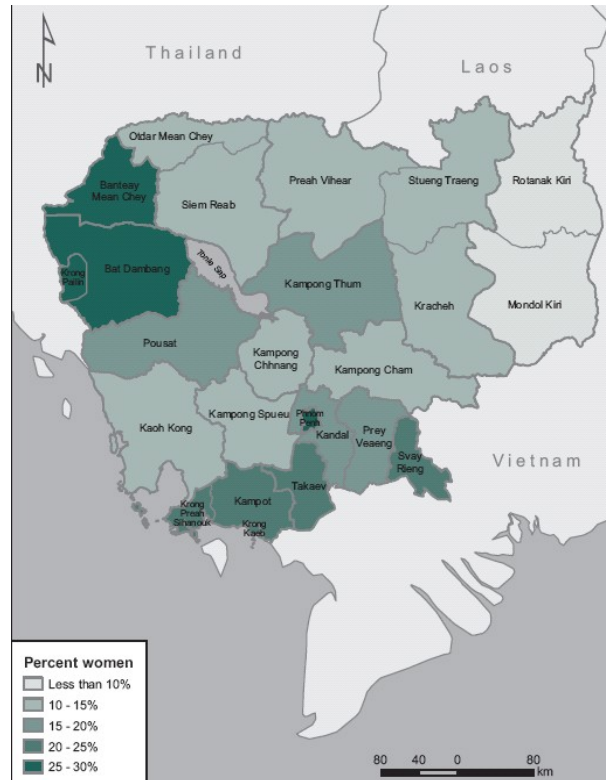


Figure 3: HIV Prevalence by Geographic Location, 2003
(Source: USAID Cambodia Strategic Plan²²)

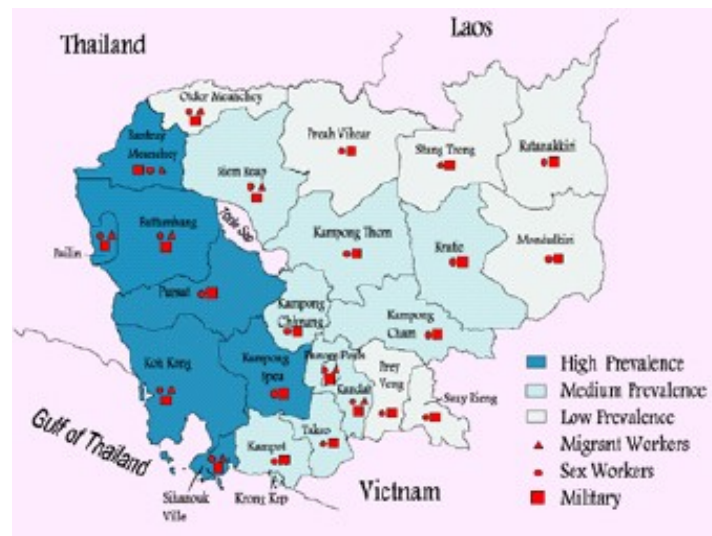


Figure 4: Primary Modes of HIV Transmission
(Source: USAID Cambodia Strategic Plan²²)

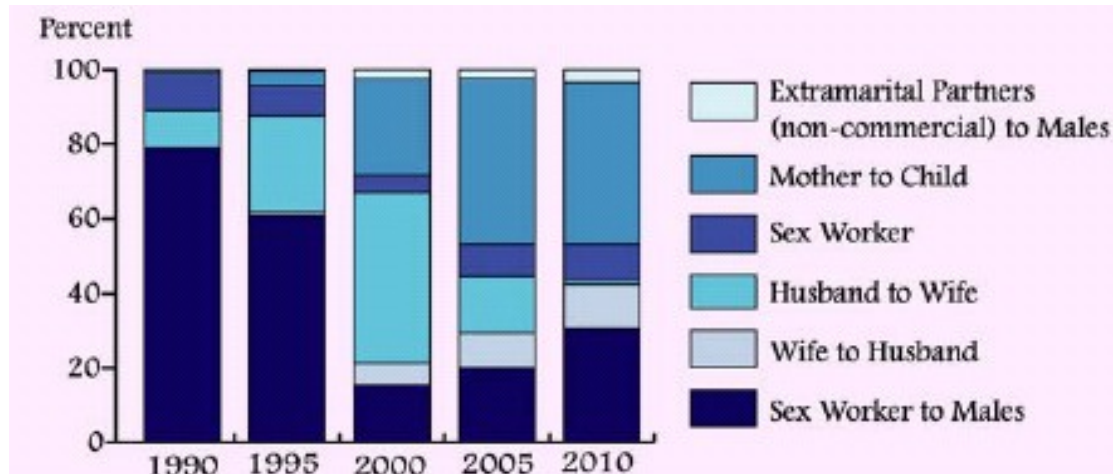


Figure 5: Malaria Incidence Rate, Cambodia, 2003
(Source: WHO Regional Office for the Western Pacific¹¹)

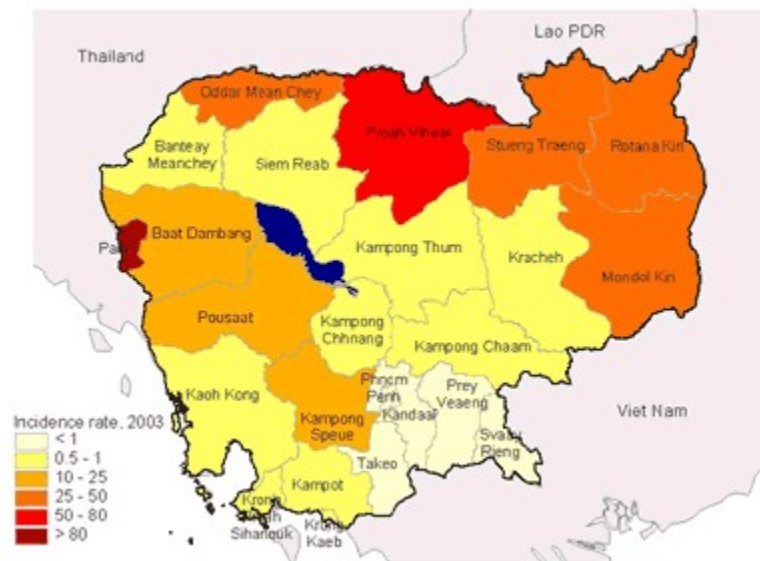


Figure 6: Malaria Morbidity and Mortality in Cambodia, 1993-2003
(Source: WHO Regional Office for the Western Pacific¹¹)

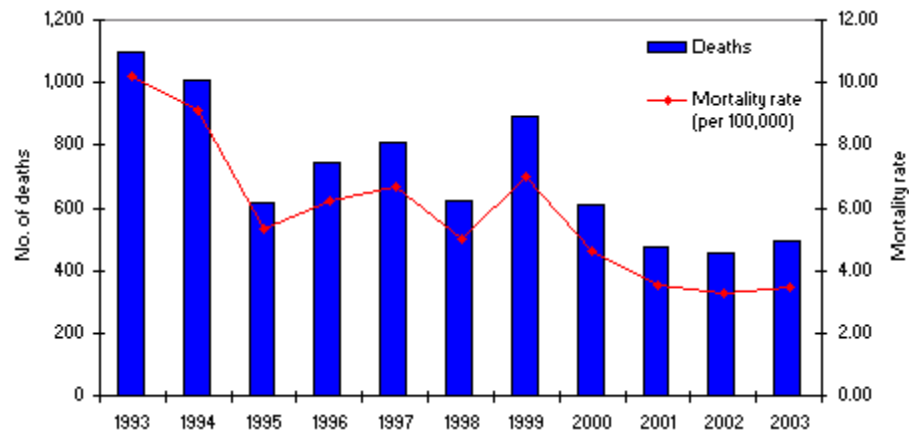
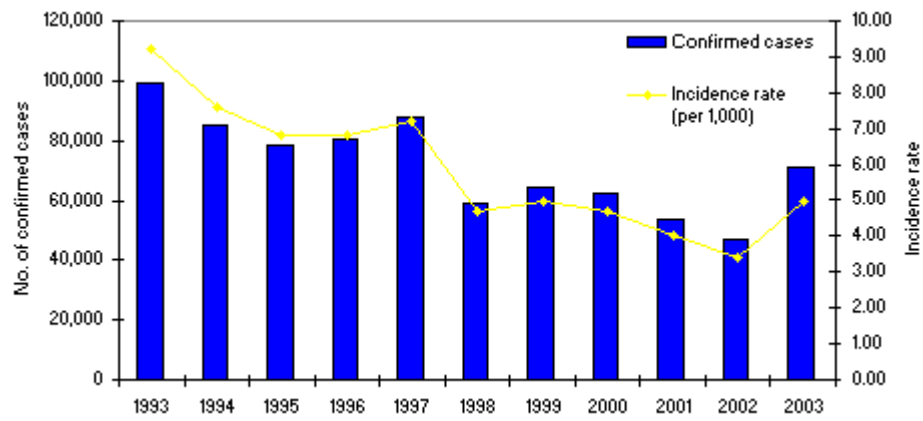


Table #1 Demographic transition and economic indicators

Indicators	Latest Year Reported	Value	Units (see Indicator Units)	Source
Demographic indicators				
Total population	2003	14144	I-1	SOWC 2005
Crude Death Rate	2003	10	I-2	SOWC 2005
Crude Birth Rate	2003	34	I-3	SOWC 2005
Life Expectancy at Birth	2003	57	I-4	SOWC 2005
Percent of population living in urban areas	2003	19	I-5	SOWC 2005
Total Fertility Rate	2003	4.7	I-6	SOWC 2005
Contraceptive Prevalence	2003	24	I-7	SOWC 2005
Adult male literacy rate	2003	80	I-8	SOWC 2005
Adult female literacy rate	2003	57	I-9	SOWC 2005
Economic Indicators				
GNI per capita	2003	310	I-10	SOWC 2005
% population below \$1/day	2002	34	I-11	SOWC 2005
% Central government expenditure for health	2003	18.6	I-12	WHR 2005
Debt service as % of exports of goods and services	2002	0	I-13	SOWC 2005
Gini Coefficient	1997	40.4	I-14	HDR 2003

Indicator Units

- I-1 Thousands of people
- I-2 Annual number of deaths per 1000 population
- I-3 Annual number of births per 1000 population
- I-4 Years
- I-5 Percentage of population living in urban areas as defined according to the national definition used in the most recent population census
- I-6 Number of children that would be born per woman if she were to live to the end of her child bearing years and bear children at each age in accordance with prevailing age specific fertility rates
- I-7 Percentage of women in union aged 15-49 years currently using contraception
- I-8 Percentage of males aged 15 and over who can read and write
- I-9 Percentage of females aged 15 and over who can read and write
- I-10 Gross national income divided by mid-year population
- I-11 Percentage of population living on less than \$1 (in 1985 purchasing power prices)
- I-12 % Central government expenditure
- I-13 Sum of interest payments and repayments of principal on external long term debts
- I-14 Gini Index measures inequality over entire income distribution. Value of 0 equals perfect equity and value of 100 equals perfect inequity.

Sources

SOWC 2005 – UNICEF, State of the World's Children 2005.²

WHR 2005 – WHO World Health Report 2005⁹

HDR 2003 – Human Development Report 2003³

Table 2 Burden of disease by WHO mortality stratum

		Year	Units	Source
Name of your country	Cambodia			
WHO Region your country is located in	Western Pacific Region			WHR 2005
Under-five mortality rate for your country	140	2003	I-1	WHR 2005
Mortality stratum for your country e.g. AfrE, AmrA	WPR-B	2004	N/A	WHR 2004
Three most populous countries in your mortality stratum and their Under-five Mortality Rates:	Under-five Mortality:			
Country 1: China	37	2003	I-1	SOWC 2005
Country 2: Vietnam	23	2003	I-1	SOWC 2005
Country 3: Philippines	36	2003	I-1	SOWC 2005
Population of all countries in the mortality stratum	1 562 136	2002	I-2	WHR 2004
TOTAL DALYs lost in the mortality stratum	248 495 000	2002	I-3	WHR 2004
I. DALYs lost to communicable, maternal, perinatal & nutritional	53 538 000	2002	I-3	WHR 2004
% DALYs lost to communicable, maternal, perinatal & nutritional	21.5	2002	I-4	WHR 2004
Top three causes of DALY loss for this category:	DALY loss for the stratum:			
1. Lower Respiratory Tract Infections	7 447 000	2002	I-3	WHR 2004
2. Diarrheal Diseases	6 641 000	2002	I-3	WHR 2004
3. Tuberculosis	5 993 000	2002	I-3	WHR 2004
II. DALYs lost to noncommunicable	159 791 000	2002	I-3	WHR 2004
% DALYs lost to noncommunicable	64.3	2002	I-4	WHR 2004
Top three causes of DALY loss for this category:	DALY loss for the stratum:			
1. Cerebrovascular disease	16 048 000	2002	I-3	WHR 2004
2. Unipolar depressive orders	14 926 000	2002	I-3	WHR 2004
3. Chronic obstructive pulmonary disease	9 820 000	2002	I-3	WHR 2004
III. DALYs lost to injuries	35 347 000	2002	I-3	WHR 2004
% DALYs lost to injuries	14.2	2002	I-4	WHR 2004
Top three causes of DALY loss for this category:	DALY loss for the stratum:			

1. Road Traffic Accidents	8 595 000	2002	I-3	WHR 2004
2. Other unintentional injuries	7 895 000	2002	I-3	WHR 2004
3. Self-inflicted	6 152 000	2002	I-3	WHR 2004

Indicator Units

- I-1 Probability of dying between birth and exactly five years of age expressed per 1,000 live births
- I-2 Thousands
- I-3 DALYs
- I-4 % of total DALYs

Source

WHR 2005 – WHO World Health Report 2005¹⁰

WHR 2004 – WHO World Health Report 2004⁹

SOWC 2005 - UNICEF, State of the World's Children 2005²

Table 3 Health and nutrition through the life cycle

Stage	Indicators	Year	Value	Units	Source
Table 3A Maternal (WHR 2005)	Pregnant women who receive 1+ antenatal visits	2000	44	%	WHR 2005
	Pregnant women who receive 4+ antenatal visits	2000	9	%	WHR 2005
	Births attended by skilled health personnel	2000	32	%	WHR 2005
	Births in health facilities	2000	10	%	WHR 2005
	Birth by Caesarian section	2000	1	%	WHR 2005
	No. midwives available	2000	3040	People	WHR 2005
	Annual number of births	2000	461	Thousand	WHR 2005
	Maternal Mortality Ratio	2000	450	Per 100000 live births	WHR 2005
Table 3B Neonatal/ Perinatal (WHR 2005)	Stillbirth rate	2000	37	/1000 totalbirths	WHR 2005
	Early neonatal mortality rate	2000	31	/ 1000 live births	WHR 2005
	Neonatal mortality rate	2000	40	/ 1000 live births	WHR 2005
	Neonatal mortality as proportion of all under-five mortality	2003	29	%	WHR 2005
	Percent of babies born with low birth weight	2003	11	%	SOWC 2005
Table 3C Postneonatal/ Infant/ Child (SOWC 2005)	Annual number of under-five deaths	2003	67 000	People	SOWC 2005
	Infant Mortality Rate (IMR)	2000	95	Annual deaths / 1000	WHR 2005
	Child Mortality Rate (CMR)	2000	32	Annual deaths /1000	WHR 2005
	Under 5 Mortality Rate (<5MR)	2003	140	Annual deaths / 1000	WHR 2005
	% children < 6 months exclusively breastfed	2003	12	%	SOWC 2005
	% children breastfed with complementary food 6-9 months	2003	72	%	SOWC 2005
	% children still breastfeeding 20-23 months	2003	59	%	SOWC 2005

Stage	Indicators	Year	Value	Units	Source
	% underfives moderately or severely underweight	2003	45	%	SOWC 2005
	% underfives with moderate and severe wasting	2003	15	%	SOWC 2005
	% underfives with moderate and severe stunting	2003	45	%	SOWC 2005
	Vitamin A supplementation coverage rate 6-59 months	2002	34	%	SOWC 2005
	% of households consuming iodized salt	2003	14	%	SOWC 2005
	% population with adequate sanitation facilities	2002	16	%	SOWC 2005
	Measles immunization rate in children 12-23 months of age	2003	65	%	SOWC 2005
	Percentage of children with acute respiratory infection or fever taken to a health facility	2003	35	%	SOWC 2005
	Percentage of children with diarrhea who received ORS or RHS	2003	N/A	N/A	SOWC 2005
Table 3D School-age, adolescent (SOWC 2005)	Primary school enrolment ratio male	2002	89	I-1	SOWC 2005
	Primary school enrolment ratio female	2002	83	I-1	SOWC 2005
	Net primary school attendance male	2003	66	I-2	SOWC 2005
	Net primary school attendance female	2003	65	I-2	SOWC 2005
	% Primary school entrants reaching grade 5	2003	93	I-3	SOWC 2005
	Secondary school enrolment ratio male	2002	27	I-4	SOWC 2005
	Secondary school enrolment ratio female	2002	16	I-4	SOWC 2005
	Median age at first marriage for women age 25-49	2000	20	Years	DHS 2000
	Median age at first birth for women age 25-49	2000	22.3	Years	DHS 2000
Table 3E Adult and elderly	Life expectancy at birth both sexes	2003	54	Years	WHR 2005
	Life expectancy at birth males	2003	50	Years	WHR 2005
	Life expectancy at birth females	2003	57	Years	WHR 2005
	Prevalence of cigarette smoking in adult males	1999	66.7	% of 15 & older	TCCP 2003
	Prevalence of cigarette smoking in adult females	1999	10.0	% of 15 & older	TCCP 2003
	Overall prevalence of smoking in adults	1999	35.0	% of 15 & older	TCCP 2003

Sources

SOWC 2005 = UNICEF State of the World's Children report 2005²

WHR 2005 = WHO World Health Report 2005¹⁰

TCCP 2003 = Tobacco Control Country Profiles 2003²⁸

Indicator Units

- I-1 The number of children enrolled in primary school who belong to the age group that officially corresponds to primary schooling, divided by the total population of the same age group
- I-2 Percentage of children in the age group that officially corresponds to primary schooling who attend primary school (from national household surveys)
- I-3 Percentage of children entering the first grade of primary school who eventually reach grade five
- I-4 The number of children enrolled in secondary school, regardless of age, divided by the population of the age group that officially corresponds to the same level

Table 4: Top health problems in Cambodia

Criteria for Choosing Problems	Top direct causes of direct mortality at present time	Top direct causes of morbidity	Most important Behavioral risk factors for disease	Top Public Health Problems Stemming From Cambodian Genocide	Top Emerging Public Health Problems
Top Three Problems	1. Tuberculosis 2. Malaria 3. ARI	1. ARI 2. Diarrhea 3. Malaria	1. Unsafe sex 2. Unsafe driving 3. Tobacco Use	1. PTSD 2. Depression 3. Landmines	1. HIV/AIDS 2. Avian Influenza 3. Lung Cancer
Sources of Information	WHO Regional Office for the Western Pacific Region ¹¹ Cambodia HIV/AIDS strategic plan 2002-2005 ²² WHO Report 2005. Global Tuberculosis Control ²³	WHO Regional Office for the Western Pacific Region ¹¹	USAID Cambodia HIV Strategic Plan 2002-2005 ²² Tobacco Control Country Profiles 2003 ²⁸ WHO Regional Office for the Western Pacific Region ¹¹	Marshall et al, <i>JAMA</i> ²⁴ Landmine Monitor ²⁵ Gollogly. <i>Lancet</i> ²⁶	USAID Cambodia HIV Strategic Plan 2002-2005 ²² <i>Aris. Lancet</i> ²⁷ Tobacco Control Country Profiles 2003 ²⁸

Table 5 - Tuberculosis in Cambodia (Source: WHO Report 2005. Global Tuberculosis Control, Country Profile, Cambodia²³)

Latest Estimates		Trends	2000	2001	2002	2003
Population	14 143 527	DOTS coverage	99	100	100	100
Global Rank (by est. No. cases)	23	Notification rate (all cases/100 000 pop)	144	142	178	199
Incidence (all cases/100 000pop/year)	508	Notification rate (new ss+/100 000 pop)	113	107	125	134
Incidence (all new ss+/100 000 pop/year)	225	Detection of all cases (%)	27	27	35	39
Prevalence (all cases/100 000 pop/year)	762	Case detection rate (new ss+, %)	49	47	55	60
TB mortality (all cases/100 000 pop/year)	95	DOTS case detection rate (new ss+, %)	49	47	55	60
TB cases HIV+ (adults aged 15-49 years)	13	DOTS case detection rate (new ss+)/coverage (%)	49	47	55	60
New cases multidrug resistance (%)	0.0	DOTS treatment successes (new ss+, %)	91	92	92	-

ss+ - smear positive

ss- - smear negative

DOTS – Directly observed therapy

Table 6 – Estimated HIV and AIDS data from Cambodia, 2002
(Source: USAIDS Cambodia HIV/AIDS Strategic Plan²²)

Indicator	Number
Cumulative HIV infections (aged 15-49)	236 136
Number of new HIV infections	9 005
Cumulative AIDS cases	97 736
Cumulative AIDS deaths	78 653
Number of new AIDS cases	15 930
Number of new AIDS deaths	17 973
Number of people living with HIV/AIDS (aged 15-49)	157 500
Male to female ratio of HIV infection	1.1:1.0
Number of children living with HIV/AIDS (aged 0-15)	12 000
Number of HIV/AIDS orphans	55 000

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